charnwood
country
4 MKII

Operating & Installation Instructions

country 4 MKII

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Before lighting the stove check with the installer that the work and checks described in the Installation Instructions have been carried out correctly and that the chimney has been swept, is sound and free from any obstructions. The stove is not suitable for use in a shared flue system.

If you are using your stove to burn wood logs in a smoke controlled area, then the Smoke Reducing Kit **MUST** be fitted and the instructions on lighting and refuelling **MUST** be followed. This stove will not produce significant smoke if well seasoned logs of less than 20% moisture content are burnt and these instructions are adhered to. Burning wet (> 20% moisture content) wood and operating the stove in an irresponsible manner may produce smoke which is illegal in smoke controlled areas.

Remember that the stove will be hot and that it is made from hard materials – ensure that you have good balance before operating the fire.

Do not use an aerosol spray on or near the stove when it is alight. There is a risk of explosion or flash ignition of the spray.

When using the stove in situations where children, aged and/or infirm persons are present a fireguard must be used to prevent accidental contact with the stove. The fireguard should be manufactured in accordance with BS 8423:2002.

The stove is suitable for intermittent operation.

FUEL

This stove has been designated to burn wood. Only dry well seasoned wood should be burnt on this appliance as burning wet unseasoned wood will give rise to heavy tar deposits in the stove, on the glass and within the chimney. For the same reason hard woods (such as Ash, Beech and Oak) are better than soft woods (such as Pine and Spruce). Burning wet unseasoned wood will also result in considerably reduced outputs. The wood should be cut and split and then left to season in a well ventilated dry place for at least one year but preferably two years before use. Approximate suitable log sizes are 255mm (10in) long and 75mm (3in) diameter.

PETROLEUM COKE IS NOT SUITABLE FOR USE ON THIS APPLIANCE. ITS USE WILL INVALIDATE THE GUARANTEE.

This stove is not designed to burn household waste. For advice on other fuels please contact Charnwood.

This appliance has been approved by HETAS as an intermittent operating appliance for burning dry seasoned wood logs only. HETAS approval does not cover the use of other fuels either alone or mixed with wood logs nor does it cover the instructions for use of other fuels.

FITTING THE RIDDLING GRATE

Tool required for fitting the riddling grate:

10mm Spanner
Pozidriv screwdriver

Before fitting the riddling grate remove the fuel retainer and the wood ash retainer. The wood ash retainer is not required when the riddling grate is fitted.

Undo the nut on the riddling blanking hole using a 10mm spanner. Remove the cover and spacing washer (ensure you keep these in a safe place as you will need to replace them if the riddling grate is removed).

Feed the riddler rod through the hole on the right hand side of the stove, and slide one washer onto the rod. (If there is not sufficient room to the right of the stove to do this then remove the riddler knob, fit one washer over the rod and then slide the rod through the hole from the inside of the stove.)

Feed the rod through the two side fireplates and slide the other washer on to the rod so that the washers end up outside the two side fireplates. With the side fireplates pushed together fit the retaining clips so that the washers come inside the clips.

Slide the side fireplates apart so that they rest against the sides of the firebox. Slot in the front and rear support plates. Fit the grate plates into position through the front and rear grate support plates, making sure they locate correctly onto the riddler rod. Fit the fuel retainer. Slide the ashpan under the grate.

Fig.1. Stove Controls

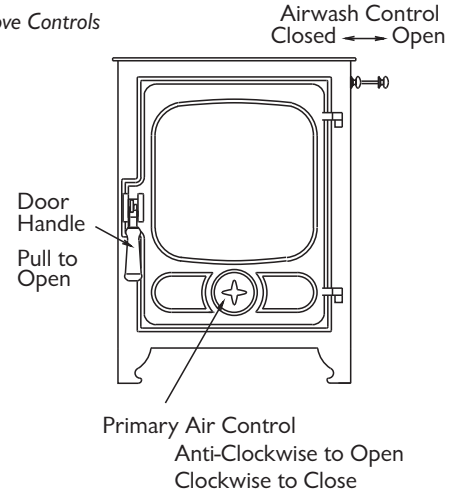
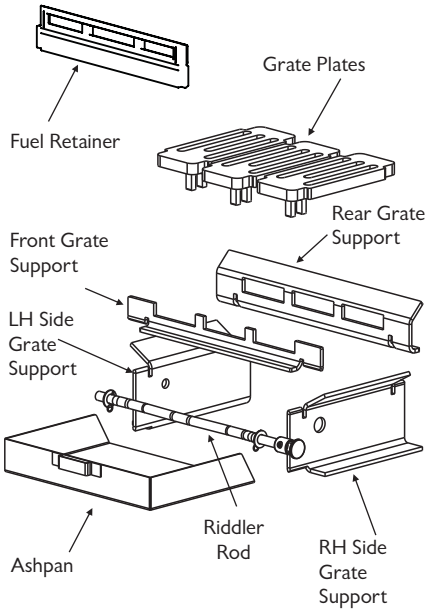


Fig.2. Optional Grate Kit



LIGHTING

On initial lighting, the stove may smoke and give off an odour as the silicon paint with which the firebox is painted reacts to the heat. This is normal and will cease after a short time, but meanwhile the room should be kept well ventilated.

At first only light a small fire and burn it slowly for two hours to allow any residual moisture in the chimney to evaporate.

Light the stove using dry kindling wood and paper or fire lighters. Put the paper, or fire lighters, and kindling in the firebox and cover with a few small dry logs. Open the air controls – the primary air control in the door and the airwash control - fully (see Fig. 1). Light the paper or fire lighters. The door may be left cracked open for a few minutes to assist the combustion and heat up the firebox more quickly. When the kindling wood is well alight add a few more small logs, close the doors but leave the air controls fully open. When the flames are established around these logs, load the stove with the required fuel load. Maintain the air controls at maximum at this stage. Once the fire is up to temperature the airwash system will begin to work, so allow the fire to become hot before adjusting the air controls to the required setting. During the lighting period, do not leave the stove unattended.

When relighting the stove, leave the ash on the base if burning wood, unless it is becoming too deep, in which case some of it may be removed. If burning high ash content fuel, clear the grate and empty the ashpan before relighting.

CONTROLLING THE FIRE

The rate of burning and hence the output is controlled by the spin wheel and the airwash control (see Fig. 1).

The spin wheel should only be used when lighting or when rapid burning is required. It should not be left fully open for long periods as this can cause over-firing. For low burning it should be closed.

The airwash control is used most of the time to control the burning rate and to keep the glass clean. Fully extended gives full airwash for faster burning and clean glass whereas fully closed gives low burning. It will not be possible to keep the glass clean if this control is fully closed, particularly immediately after refuelling. For correct firing we recommend the use of a stove pipe thermometer which may be purchased from your supplier or from ourselves.

When the stove is hot, these controls must only be operated using the tool provided or a glove to avoid the danger of burned fingers.

REFUELLING

Keep the firebox well filled but do not allow fuel to spill over the top of the fuel retainer.

Logs should be evenly distributed, filling the firebed to give the most pleasing flame pattern. The air controls must be fully opened after refuelling until the flames are established above the fire. It is best to refuel on to a hot bed of ash. If at this point the fire starts to die, the doors must be cracked open until the fire is revived in order that smoke may not be produced. If the fire has started to die down before refuelling, then more kindling wood must be added, the air controls opened fully and the door cracked open to re-establish the firebed ***before*** adding larger logs (see suitable log sizes in Fuel section).

Care should be taken, especially when burning wood, that fuel does not project over the fuel retainer or damage to the glass may be caused when the door is closed. It can also cause the glass to blacken. Maximum filling height is such that logs cannot fall from the fire when the doors are opened. In smoke controlled areas do not fill the stove above the level of the front firebars. Liquid fuels are not to be used on this appliance.

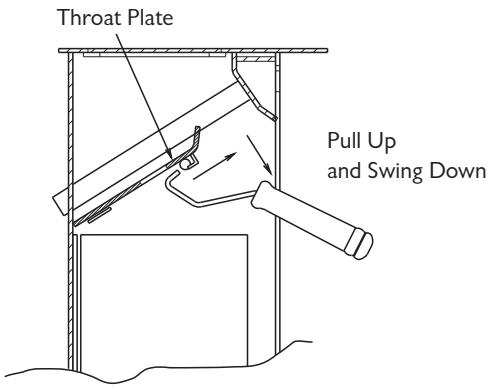
ASH CLEARANCE

The ashpan should be emptied regularly before it becomes too full. Never allow the ash to accumulate in the ashpan so that it comes in contact with the underside of the grate as this will seriously damage

the grate bars. The ashpan is handled using the tool provided. Care should be taken to ensure that ash is cool before emptying it into plastic liners or bins.

To make ash removal easier there is a special Charnwood ash carrier available. This may be purchased from your supplier or, in case of difficulty, directly from Charnwood.

Fig.3. Throat Plate Position and Lowering



REDUCED BURNING

For reduced burning the fire door must be closed.

When burning wood in areas that are not smoke controlled, load some large logs on the fire and allow to burn for half an hour before closing the spin wheel (this will help to reduce tar deposits in the chimney). Leave the airwash control slightly open to help keep the glass clear. Some experimentation may be necessary to find the setting most suitable for the type of fuel being used and the draw on the chimney.

To revive the fire, empty the ashpan, (if burning fuel other than wood), riddle the fire, and open the air controls to maximum. When the fire is burning well load on more fuel as necessary and adjust the air controls to the desired setting.

CLEANING AND MAINTENANCE

The stove is finished with a high temperature paint which will withstand the temperatures encountered in normal use. This may be cleaned with a damp lint-free cloth when the stove is cold. Should re-painting become necessary, high temperature paints are available from your supplier or from stove shops.

Most deposits on the glass may be burnt off simply by running the fire at a fast rate for a few minutes. If it becomes necessary to clean the glass then open the door and allow it to cool. Clean the glass using a damp cloth and then wiping over with a dry cloth. Any stubborn deposits on the glass may be removed with a proprietary stove glass cleaner or ceramic hob cleaner. Do not use abrasive cleaners or pads as these can scratch the surface which will weaken the glass and cause premature failure

THROAT PLATE AND FLUEWAY CLEANING

It is important that the throat plate and all the stove flueways are kept clean in order to prevent potentially dangerous fume emission. They should be cleaned at least monthly, and more frequently if necessary. It is necessary to let the fire out to carry out these operations.

The front of the throat plate is pulled forward and then lowered as shown in Fig. 3. Any sooty deposits should then be swept from the plate and into the fire.

Return the throat plate to its correct position - raise the front of the plate, push it back and then lower it onto the retaining lugs.

CHIMNEY SWEEPING

The chimney should be swept at least twice a year. Where the top outlet or vertical rear flue connector is used it will generally be possible to sweep the chimney through the appliance.

First remove the fuel retainer and the throat plate. Then sweep the chimney ensuring that soot is removed from all horizontal surfaces after sweeping.

In situations where it is not possible to sweep through the appliance the installer will have provided alternative means, such as a soot door. After sweeping the chimney the appliance flue outlet and the flue pipe connecting the stove to the chimney must be cleaned with a flue brush.

After clearing any soot from within the stove, replace the throat plate (see Fig. 3.) and the fuel retainer.

Different types of sweep's brushes are available to suit different flueways. For standard brick chimneys a wire centre sweep's brush fitted with a guide wheel is recommended. For prefabricated insulated chimneys the manufacturers instructions with regard to sweeping should be consulted.

SERVICING

It is recommended that the fire is serviced once a year to keep it in first class working order. After cleaning out the firebox thoroughly, check that all internal parts are in good working order, replacing any parts that are beginning to show signs of wear. Check that the doors

seals are in good condition and that the door seals correctly. A servicing guide is available on request. Repairs or modifications may only be carried out by the Manufacturer or their approved agents. Use only genuine Charnwood replacement parts.

TROUBLE SHOOTING

Fire Will Not Burn

Check that:
a) the air inlet is not obstructed in any way,
b) chimneys and flueways are clear,
c) a suitable fuel is being used,
d) there is an adequate air supply into the room,
e) an extractor fan is not fitted in the same room as the stove.
f) there is sufficient draw in the chimney. Once the chimney is warm a draught reading of at least 2.5 mm (0.10 inches) water gauge (25Pa) should be obtained.

Blackening of Door Glass

Differences in chimney draughts mean that the best settings of the air controls will vary for different installations. A certain amount of experimentation may be required. However the following points should be noted, and with a little care should enable the glass to be kept clean in most situations:

a) Wet or unseasoned wood, or logs overhanging the front fence will cause the glass to blacken.

b) The airwash relies on a supply of heated air to keep the glass clean. Therefore, when lighting the stove allow the firebed to become well established before closing the spin wheel. This may also be necessary when re-fuelling the stove.

c) When re-fuelling keep the fuel as far back from the front fence as possible, do not try to fit too much fuel into the firebox.

d) Never completely close the airwash control - as a guide it should be at least a quarter open.

e) The spin wheel may be kept slightly open to assist in keeping the glass clean.

It is always more difficult to keep the glass clean when running the stove very slowly for long periods.

If blackening of the glass still occurs check that all flue connections and the blanking plate are well sealed. It is also important that the chimney draw is sufficient and that it is not affected by down-draught.. When the chimney is warm a draught reading of at least 2.5 mm (0.10 inches) water gauge (25Pa) should be obtained.

Some blackening of the glass may occur below the level of the coal retainer. This will not obscure the view of the fire or affect its performance.

Fume Emission

Warning Note:
Properly installed and operated this appliance will not emit fumes. Occasional fumes from de-ashing and re-fuelling may occur. Persistent fume emission is potentially dangerous and must not be tolerated. If fume emission does persist, then the following immediate actions should be taken:

a) Open doors and windows to ventilate the room.

b) Let the fire out and safely dispose of the fuel from the appliance.

c) Check for flue or chimney blockage, and clean if required.

d) Do not attempt to re-light the fire until cause of fume has been identified, if necessary seek professional advice.

The most common cause of fume emission is flueway or chimney blockage. For your own safety these must be kept clean.

Fire blazing out of control

Check that:

a) The door is tightly closed.
b) The spin wheel is fully closed.
c) The airwash control is closed.
d) A suitable fuel is being used.
e) Door seals and airwash slide are intact.

Chimney Fires

If the chimney is thoroughly and regularly swept, chimney fires should not occur. However, if a chimney fire does occur close the spin wheel and the airwash control, and tightly close the door of the appliance. This should cause chimney fire to go out in which case the controls should be kept closed until the stove has gone out. The chimney and flueways should then be cleaned. If the chimney fire does not go out when the above action is taken then the fire brigade should be called immediately.

After a chimney fire the chimney should be carefully examined for any damage. Expert advice should be sought if necessary.

CO Alarm

Your installer should have fitted a CO alarm in the same room as the appliance. If the alarm sounds unexpectedly, follow the instructions given under "Warning Note" above.

IF YOU NEED FURTHER HELP

If you need further help with your Charnwood then your Installer will be able to provide the answers to most questions. Your Local Charnwood Premier Dealer has a great deal of experience and will also be able to provide helpful advice. Further help is available from the Charnwood Customer Services department who will be pleased to give advice, if necessary.

HEALTH AND SAFETY PRECAUTIONS

Please take care when installing the stove that the requirements of the Health and Safety at Work Act 1974 are met.

Some types of fire cement are caustic and should not be allowed to come into contact with the skin. In case of contact wash with plenty of water.

If there is a possibility of disturbing any asbestos in the course of installation then please use appropriate protective equipment.

There must not be an extractor fan fitted in the same room as the stove as this can cause the appliance to emit fumes into the room.

As the output is below 5kW a permanent air supply is not normally required. This stove is capable of intermittent operation.

This stove is not suitable for use in a shared flue system.

In addition to these instructions the requirements of BS.8303 and BSEN 15287-1:2007 must be fulfilled. Local Authority Bylaws and Building Regulations, including those referring to national and European Standards, regarding the installation of Solid Fuel burning appliances, flues and chimneys must also be observed.

CO ALARMS

Building regulations require that whenever a new or replacement fixed solid fuel or wood/biomass appliance is installed in a dwelling a carbon monoxide alarm must be fitted in the same room as the appliance. Further guidance on the installation of the carbon monoxide alarm is available in BS EN 50292:2002 and from the alarm manufacturer's instructions. Provision of an alarm must not be considered a substitute for either installing the appliance correctly or ensuring regular servicing and maintenance of the appliance and chimney system.

SPECIFICATION

The nominal output of the Country 4 is 4.8 kW (16,300 Btu/h). This output is based on a 45minute re-fuelling cycle burning seasoned hardwood logs. The average flue temperature at rated output is 266°C. The Flue gas mass flow is 4.8g/s and the stove weight is 62kg.

CHIMNEY

In order for the appliance to perform satisfactorily the chimney height must not be less than 4 metres measured vertically from the outlet of the stove to the top of the chimney. The internal dimensions of the chimney should preferably be 175 mm (7 inches) or 200mm (8 inches) either square or round and MUST NOT BE LESS THAN 150 mm (6 inches).

If an existing chimney is to be used it must be swept and checked, it must be in good condition, free from cracks and blockages, and should not have an excessive cross sectional area. If you find that the chimney is in poor condition then expert advice should be sought regarding the necessity of having the chimney lined. If it is found necessary to line the chimney then a lining suitable for Solid Fuel must be used.

If there is no existing chimney then a prefabricated block chimney or a twin walled insulated stainless steel flue to BSEN 15287-1:2007 can be used either internally or externally. These chimneys must be fitted in accordance with the manufacturers instructions and Building Regulations.

Single wall flue pipe is suitable for connecting the stove to the chimney but is not suitable for using for the complete chimney.

If it is found that there is excessive draw in the chimney then a draught stabiliser should be fitted.

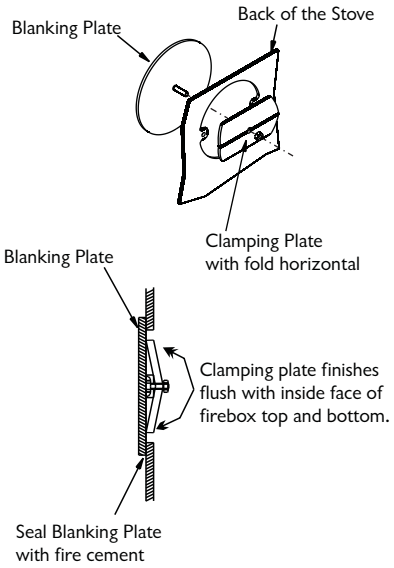
It is important that there is sufficient draw in the chimney and that the chimney does not suffer from down-draught. When the chimney is warm the draw should be not less than 2.5mm (0.10 inches) water gauge (25 Pa). If in doubt about the chimney seek expert advice.

HEARTH AND FIRE SURROUND

The stove must stand on a fireproof hearth and must not be situated closer than 600mm from the sides and 700mm from the rear to combustible materials above hearth level unless adequately fireproofed in accordance with local building regulations. The hearth temperature can, in extreme conditions, exceed 100°C and therefore a constructional hearth is required. The positioning of the stove and the size of the hearth are governed by building regulations for Class 1 appliances. These building regulations state that the hearth must extend in front of the stove by at least 300mm (12 inches) and to the sides of the stove by at least 150mm (6 inches). If in doubt as to the positioning of the stove expert advice should be sought either from the supplier or the local building inspector.

The fireplace must allow good circulation of air around the appliance to ensure that maximum heat is transferred to the room and also to prevent the fireplace from overheating. A gap of 150mm (6 inches) each side and 300mm (12 inches) above the appliance should give

Fig. 4. Flue Blanking Plate.



sufficient air circulation. If a wooden mantelpiece or beam is used in the fireplace it should be a minimum of 460mm (18 inches), and preferably 600mm (24 inches) from the appliance. In some situations it may be necessary to shield the beam or mantelpiece to protect it.

In order for the fire to operate correctly and to allow for access, there must be an air gap behind the appliance of at least 75mm, but be aware that this distance will need to be greater in some cases to meet Building Regulation requirements.

CONNECTIONS TO FLUES

The stove must be connected to the flue using 125mm (5") i/d pipe. This may be stainless steel, cast iron, or thick wall steel pipe. Straight lengths of Charnwood Pipe to match the stove are available if required.

There are several ways of connecting the stove to the flue. These are illustrated in Figs. 5 to 8.

If the optional vertical rear flue connector is used then the chimney may be swept through the appliance.

Horizontal lengths of flue must be kept to a minimum and should not be more than 125mm (5 inches) long. The sealing face of the flue collar must be coated with fire cement before fixing to the body of the stove using the two screws provided. The blanking plate must be removed, sealed with fire cement and refitted, care being taken to ensure that the fold on the clamping plate is in line with the lugs on the firebox as shown in Fig. 4. Ensure that the clamping plate does not prevent the throat plate from seating correctly. All flue connections must be well sealed.

Fig. 5. Vertical Register Plate With Bricked Up Fireplace

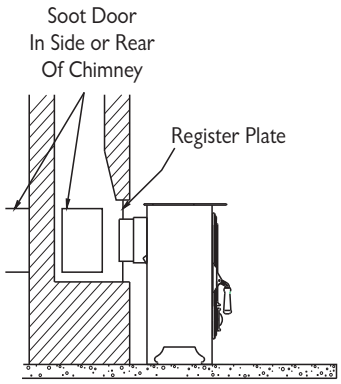


Fig. 6. Horizontal Register Plate With Rear Flue Connection

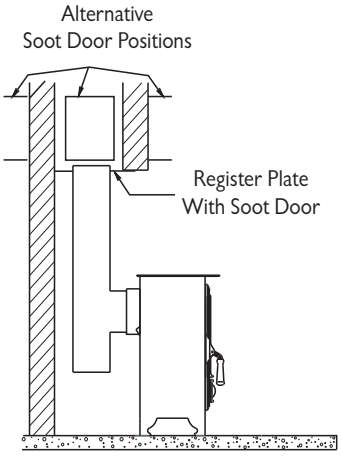


Fig. 7. Horizontal Register Plate With Top Flue Connection

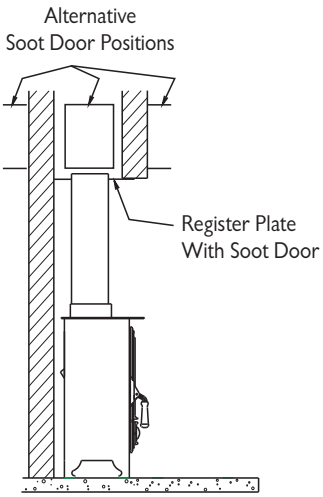
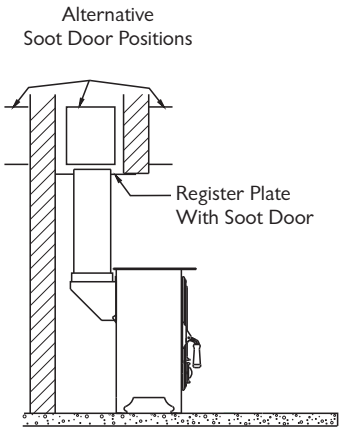


Fig. 8. Horizontal Register Plate With Optional Vertical Rear Flue Connector



SOOT DOORS

It is possible to pass a 16 inch diameter sweep's brush through the appliance but in most back outlet installations it will be necessary to have a soot door to enable the chimney to be swept. The optional vertical rear flue connector does allow the chimney to be swept through the stove.

Soot doors may either be in the actual brickwork of the chimney or in the register plate. Various positions of soot doors are shown in Figs. 5 to 8.

PRE LIGHTING CHECK

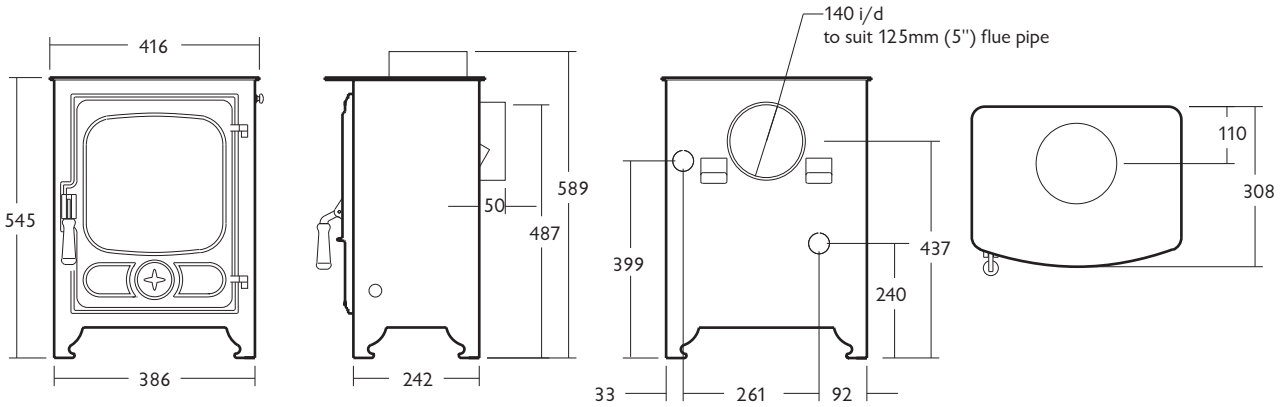
Ensure that the throat plate is fitted in the roof of the appliance. The location and positioning of the throat plate is shown in Fig. 3.

Check that the front fence is fitted correctly and that the door closes properly.

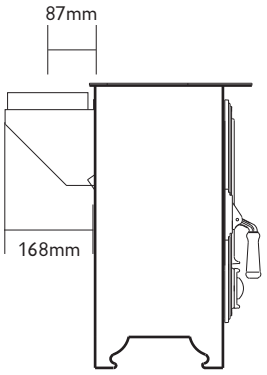
COMMISSIONING

On completion of the installation allow a suitable period of time for the fire cement and mortar to dry out before lighting the fire. If no grate is fitted, make a layer of ash or sand on the base of the stove before lighting. Check to ensure that smoke and fumes are taken from the appliance up the chimney and emitted safely. Also check all joints and seals. On completion of the installation and commissioning please leave the operating instructions with the customer and advise them on the use of the appliance.

COUNTRY 4 DIMENSIONS (mm)



Dimensions of the Optional Vertical Rear Flue Connector



COUNTRY 4 PARTS LIST

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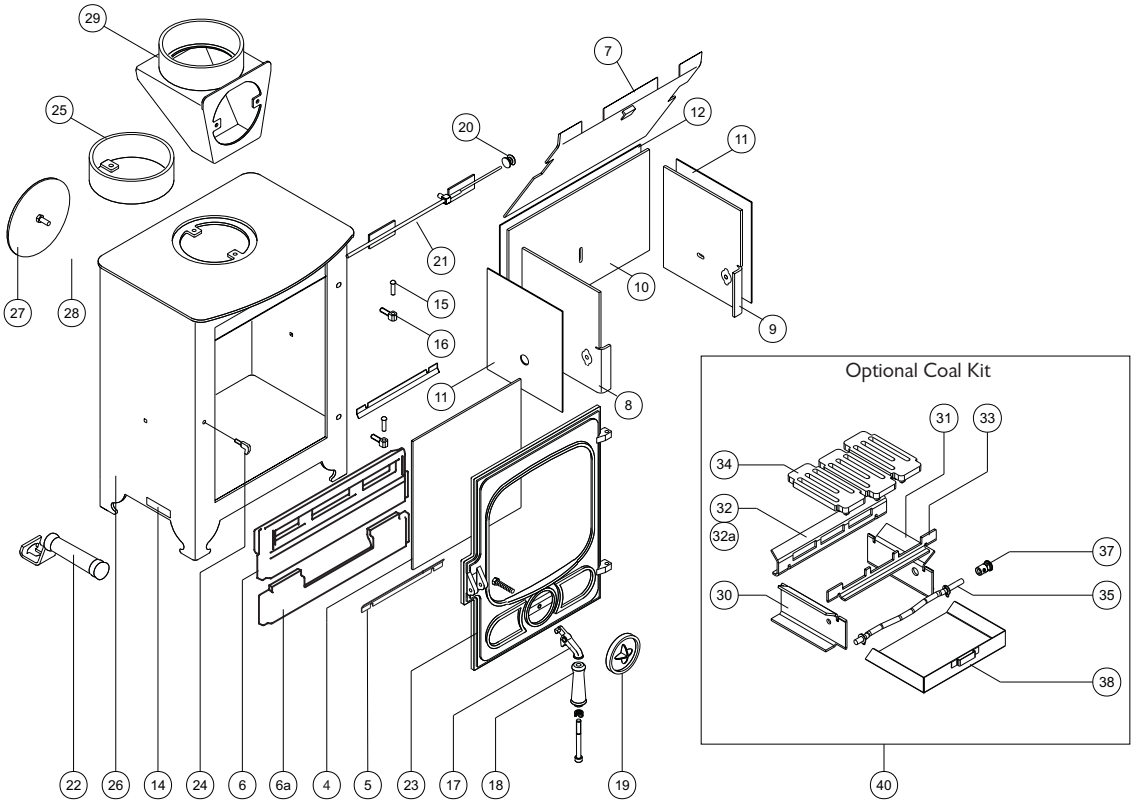
Issue N



Item	Part No.	Description
1*	008/PV21	Door Seal
2*	008/FW29	Door Seal Adhesive
3*	008/PV55	Glass Seal Kit
4	006/PV19	Glass (Inc Seal)
5	004/BW23	Glass Retainer
6	002/EY23	Fuel Retainer
6a	002/EY24	Wood Ash Retainer
7	010/PV31	Throat Plate
8	010/EY15L	L.H. Side Fire Plate (Inc Gasket)
9	010/EY15R	R.H. Side Fire Plate (Inc Gasket)
10	010/EY16	Back Fire Plate (Inc Gasket)
11	011/PV26	Side Ceramic Gasket
12	011/PV27	Back Ceramic Gasket
13	008/EY29	Set of Fire Plates(3) & Gaskets
14	012/PV11	Serial No. Label
15	008/PV28/S	Hinge Pin Set (2 Per Set)
16	008/FW28	Hinge Post
17	002/PV03	Door Catch Lever
18	008/PV08	Door Handle (Incl. Screw & Washer)
19	002/PV02	Primary Air Control
20	002/TW13	Air Control Knob
21	004/EY48	Airwash Slide
22	012/BV20/A	Ashpan / Door Opening Tool

Item	Part No.	Description
23#	002/PV01/A	Door Assembly
24	002/PV13	Door Latch Hook
25	002/PV12B	Flue Collar
26	001/EY10	Firebox (Country 4 MkII)
27	012/PV09	Blanking Plate
28	010/EY51	Clamping Plate
29	010/PV33	Vert. Rear Flue Adapter (Opt'l Extra)
30	010/EY04	Left Hand Side Grate Support
31	010/EY05	Right Hand Side Grate Support
32	010/EY09	Rear Grate Support
32a	010/EY06B	Rear Grate Support (Use With Boiler)
33	010/EY06	Front Grate Support
34	002/EY03	Grate Plate
35	010/EY13	Riddler Rod
36*	008/DY23	Riddler Rod Retaining Clips (Pack of 10)
37	002/DY21	Riddler Knob
38	004/PV17	Ashpan
40	010/EY20	Multifuel Kit (Optional Extra)
41*	010/EW51	Ash Carrier (Optional Extra)
42*	010/PV35	Boiler, Steel (Optional Extra)
43*	010/PV35/SS	Boiler, Stainless Steel (Opt'l Extra)
44*	004/DY22	Riddler Blanking Disc
45*#	010/PV34	Add-on Shelf (Optional Extra)

* These items are not shown on the drawing.
# Please specify colour when ordering.

To obtain spare parts please contact your local stockist giving Model, Part No. and Description. In case of difficulty contact the manufacturer at the address shown.
This drawing is for identification purposes only.

charnwood BISHOPS WAY, NEWPORT, ISLE OF WIGHT PO30 5WS, UNITED KINGDOM
T:+44 (0)1983 537799 • F:+44 (0)1983 537788 • SPARES@CHARNWOOD.COM • WWW.CHARNWOOD.COM

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